

CLAIMS:

1. A method for starting an internal combustion engine with electromechanically actuated valves, the method  
5 comprising:  
    during a first set of operating conditions,  
performing a first combustion event in a first cylinder  
of said engine during at least two consecutive starts of  
said engine; and  
10      during a second set of operating conditions,  
performing a first combustion event in a second cylinder  
of said engine.
2. The method of Claim 1 wherein said operating  
15 conditions includes a temperature of said engine.
3. The method of Claim 1 wherein said operating  
conditions includes a temperature of ambient air inducted  
into said engine.  
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4. The method of Claim 1 wherein said operating  
conditions includes a temperature of a catalyst.
5. The method of Claim 1 wherein said operating  
25 conditions includes barometric pressure

6. A method for starting an internal combustion engine with electromechanically actuated valves, the method comprising:

5 during a first set of operating conditions  
performing a first combustion event in a first cylinder of said engine during at least two consecutive starts of said engine; and

10 during a second set of operating conditions  
performing a first combustion event in a second cylinder of said engine during at least two consecutive starts of said engine.

7. The method of Claim 6 wherein said operating  
15 conditions includes a temperature of said engine.

8. The method of Claim 6 wherein said operating  
conditions includes a temperature of ambient air inducted into said engine.

20 9. The method of Claim 6 wherein said operating  
conditions includes a temperature of a catalyst.

10. The method of Claim 6 wherein said operating  
25 conditions included barometric pressure

11. The method of claim 6 wherein a cylinder to perform  
said first combustion event is further based on a  
characteristic of the engine.

30 12. The method of Claim 11 wherein said engine  
characteristic is a distance of said cylinder relative to  
the engine flywheel.

13. The method of Claim 11 wherein said engine characteristic is intake port geometry.

14. The method of Claim 11 wherein said engine  
5 characteristic is intake port surface finish.

15. The method of Claim 11 wherein said engine characteristic is a location of said cylinder relative to the location of an oxygen sensor in the exhaust manifold.  
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16. The method of Claim 11 wherein said engine characteristic is a location of an injector relative to said cylinder.

15 17. The method of Claim 11 wherein said engine characteristic is a location of said cylinder relative to a motor mount.

18. The method of Claim 11 wherein said selected  
20 cylinder is further based on an engine operating condition.

19. A computer readable storage medium having stored data representing instructions executable by a computer  
25 to control an internal combustion engine of a vehicle, said storage medium comprising:

instructions that during a first set of operating conditions perform a first combustion event in a first cylinder of said engine during at least two  
30 consecutive starts of said engine; and

during a second set of operating conditions performing a first combustion event in a second cylinder of said engine.